

## Public Comments on Antidegradation Implementation Procedures Draft Responsiveness Summary

### *Rule vs. Guidance*

**1. Comment:** The Coalition believes that various aspects of the proposed antidegradation implementation procedures (*e.g.*, definition of “significant degradation,” definition of “minimal degradation”) should be proposed and adopted as rule language in Arizona’s surface water quality standards. The Coalition also believes that the adoption of these provisions into rule should be made concurrent with the adoption of the associated implementation procedures. Accordingly, we propose that ADEQ hold separate stakeholder discussions to determine what aspects of the proposed antidegradation implementation procedures should be adopted into rule via Arizona’s surface water quality standards.

As ADEQ is aware, the Arizona Administrative Procedure Act defines “rule” as “an agency statement of general applicability that implements, interprets or prescribes law or policy, or describes the procedure or practice requirements of an agency.” [See A.R.S. §41-1001(17)]. To the extent that aspects of the antidegradation implementation procedures will have general applicability across the board, such provisions are more in the nature of a rule and should be adopted through the rulemaking process prior to implementation.

**Response:** ADEQ agrees that some aspects of the proposed antidegradation implementation procedures should be adopted by rule. ADEQ is aware of the statutory definition of an administrative rule found in A.R.S. §41-1001(17). However, the existence of a statutory definition of “rule” does not provide bright line criteria as to which aspects of the antidegradation implementation procedures should be in rule. As the *Arizona Rulemaking Manual* points out, “it is not always clear when something belongs in rule and when something belongs in a policy manual.” Important questions to ask in making the determination as to what belongs in rule vs. policy are whether the written procedures will bind only ADEQ personnel or will it bind the outside world? Will ADEQ use the antidegradation implementation procedures to make distinctions in how members of the public are treated? If the antidegradation implementation procedures bind members of the public (*i.e.*, they are regulatory in nature), then ADEQ agrees that the procedures should be in rules. On the other hand, explanations, ADEQ interpretations of antidegradation requirements, and antidegradation implementation procedures that spell out internal ADEQ procedures (*e.g.*, how ADEQ personnel conduct antidegradation reviews) do not belong in rule. An implementation procedure that concerns only the internal management of ADEQ and that does not directly and substantially affects the procedural or substantive rights or duties of a segment of the public should not be in rule.

ADEQ agrees that some aspects of the draft antidegradation implementation procedures may be in the nature of a rule. For example, the definition of “significant degradation”

that triggers Tier 2 antidegradation review procedures is an example of a part of the antidegradation implementation procedures that affect the procedural and substantive rights and duties of the regulated community that should be addressed in a rule. Other parts of the draft antidegradation implementation procedures are more explanatory or advisory in nature or they relate to how ADEQ implements and manages antidegradation requirements. Such procedures are more in the nature of substantive policy and should remain in a guidance document or as a substantive policy statement. In general, ADEQ believes that the bulk of the antidegradation implementation procedures in the June, 2000 draft document are explanatory, advisory, and non-regulatory in nature and should remain in a guidance document.

A.R.S. 41-1001(20) defines “substantive policy statement” as:

“...[A] written expression which informs the general public of an agency’s current approach to, or opinion of, the requirements of the federal or state constitution, federal or state statute, administrative rule, or regulation, or final judgment of a court of competent jurisdiction including, where appropriate, the agency’s current practice, procedure, or method of action based upon that approach or opinion. A substantive policy is advisory only. A substantive policy statement does not include internal procedural documents which only affect the internal procedures of the agency and does not impose additional requirements or penalties on regulated parties, confidential information, or rules made in accordance with this chapter.”

Under the above definition, it is appropriate for ADEQ to develop a substantive policy statement that informs the general public about ADEQ’s current approach to and the agency’s interpretation of the requirements of the antidegradation rule. An antidegradation guidance or policy statement may include written statements regarding ADEQ’s current practice, procedures, or methods of action based upon the agency’s current interpretation of antidegradation requirements.

ADEQ disagrees with the suggestion that *separate* stakeholder discussions be held to determine what aspects of the proposed antidegradation implementation procedures should be adopted into rule via Arizona’s surface water quality standards. ADEQ believes that such discussions should take place in the triennial review of the surface water quality standards rules. ADEQ will propose an antidegradation implementation rule in the upcoming triennial review of surface water quality standards.

ADEQ also disagrees with the idea that adoption of antidegradation implementation rules should be concurrent with the development of the antidegradation implementation procedures guidance document. Nothing in the Arizona Administrative Procedures Act requires ADEQ to run the rulemaking and guidance development processes concurrently. There is no reason to further delay completion of antidegradation implementation procedures for more than a year to complete the triennial review of the surface water quality standards rules. In fact, ADEQ believes that development of a final antidegradation implementation guidance document is a prerequisite to developing a

good antidegradation implementation rule. The completion of a final antidegradation implementation procedures guidance document will give members of the public an opportunity to review the guidance document to specifically identify those elements of the antidegradation implementation procedures that are regulatory in nature or that directly and substantially affect the procedural or substantive rights or duties of a segment of the public that should be incorporated into a rule.

Finally, ADEQ disagrees that there should be a separate rulemaking process to adopt an antidegradation implementation rule outside of the triennial review. The antidegradation rule, R18-11-107, is a surface water quality standard. The appropriate time to adopt a new antidegradation implementation rule is during the triennial review of the surface water quality standards rules. ADEQ is currently developing the issues to be considered in the next triennial review of surface water quality standards rules. ADEQ has opened the rulemaking docket to adopt new rules and amend existing surface water quality standards rules in early 2005. Agency rulemaking is a resource- and time-intensive process. Separate rulemakings should be avoided wherever possible to maximize efficiency and conserve ADEQ administrative resources.

**2. *Comment:*** In the 2002 Triennial Review, ADEQ stated that the Department is committed to the development of complete and adequate antidegradation implementation procedures in rule:

ADEQ agrees with the comment that it may not be possible to develop antidegradation implementation procedures completely through guidance and that some antidegradation issues may need to be addressed in rule. A.R.S. §49-232 requires the adoption of rules specifying implementation procedures for narrative water quality standards if violations of the standards are to be grounds for the §303(d) listing or water quality assessment purposes. The rules must specifically identify the objective basis for determining that a violation of a narrative criterion exists before any surface water may be identified as impaired on the basis of a narrative criterion. The antidegradation rule is a narrative water quality standard. Thus, before ADEQ could list a surface water as impaired because the provisions of the antidegradation rule are not met, ADEQ must develop antidegradation implementation procedures in rule. ADEQ is committed to the development of complete and adequate antidegradation implementation procedures through a rulemaking process that will include public participation in 2002.

Given that the Arizona Administrative Procedures Act specifically proscribes [sic] that a “rule means an agency statement of general applicability that implements, interprets, or prescribes law or policy, or describes the procedure or practice requirements of an agency,” the bulk of the proposed antidegradation implementation procedures must be developed in rule. Certainly, all definitions related to antidegradation standards and review, should be in rule. Also, threshold issues, including when an antidegradation review is triggered, should be in rule to clarify the antidegradation rule and its potential

scope and application. The proposed antidegradation implementation procedures set forth the agency's stated position of general applicability that meets the definition of a rule. Thus, the Department may wish to refocus the antidegradation implementation procedures efforts toward the development of a rules package.

**Response:** Again, ADEQ agrees with the comment that *some* antidegradation implementation procedures may need to be addressed in rule [ *See* response to previous comment]. ADEQ disagrees that the bulk of the proposed antidegradation implementation procedures in the June, 2004 draft document must be developed in rules. On the contrary, ADEQ believes that the bulk of the guidance document is explanatory and interpretive in nature and does not affect the substantive or procedural rights and duties of members of the public. In ADEQ's opinion, a relatively small number of antidegradation implementation procedures and concepts need to be incorporated into rule. ADEQ agrees that certain threshold issues that directly affect the regulated community, such as proposed triggers for comprehensive Tier 2 antidegradation review should be incorporated into rule.

### ***Definitions***

**3. Comment:** Definition of "Degradation" (p. v): "Degradation" is defined as a "decline in the chemical, physical, or biological conditions of a water body or other decline in water quality as measured parameter-by-parameter." The concept of degradation should be focused on a significant lowering of water quality not *any* lowering of water quality. In addition, degradation should be defined only to include a significant decline in chemical conditions of a water body. There are no objective criteria for assessing degradation of physical or biological conditions and the term "degradation" should not be defined to include such items without further clarification and discussion with stakeholders.

**Response:** ADEQ disagrees that degradation should be defined in terms of a *significant* lowering of water quality. In ADEQ's opinion, "degradation" is correctly defined as *any* lowering of water quality. "Minimal" degradation and "significant" degradation both describe degrees of degradation of water quality.

ADEQ also disagrees that degradation should be defined only by reference to a lowering of chemical water quality conditions. The definition of "degradation" should include references to the lowering of biological or physical conditions in surface waters. According to the *Water Quality Standards Handbook, 2<sup>nd</sup> Edition*: "Antidegradation was originally based on the spirit, intent, and goals of the Act, especially the clause "...restore and maintain the *chemical, physical, and biological integrity* of the Nation's waters." [ *Emphasis added, See p. 4-1 of the Water Quality Standards Handbook*]. Antidegradation is an integral element of a comprehensive approach to maintaining and protecting water quality. The degradation of physical and biological integrity of a surface water should be addressed by the antidegradation rule. For this reason, the definition of "degradation" should not be limited to chemical water quality only.

**4. Comment:** Definition of “Minimal Degradation”: While ADEQ proposes to define “significant degradation” in the draft implementation procedures, there is no definition of “minimal degradation” (*i.e.*, degradation that does not trigger antidegradation review). The Coalition strongly encourages ADEQ to define “minimal degradation.” We propose that “minimal degradation” be defined as the consumption of less than 10% of a water body’s available assimilative capacity for a particular pollutant when at least 10% of the total assimilative capacity for the pollutant will remain unused. This definition is consistent with the approach followed by several western and other states. For instance, New Mexico’s antidegradation implementation procedures specify that certain industrial discharges are *de minimis* and therefore not subject to antidegradation review. Specifically, if “the new or increased discharge will consume less than or equal to 10 percent of the total assimilative capacity for the pollutant of concern, and at least 10 percent of the total assimilative capacity for the pollutant of concern will remain unused after the discharge” no review is necessary [ New Mexico’s Antidegradation Implementation Procedures III(A)(2)(a)(2)]. Additionally, the Great Lakes states have a requirement that at least 10% of the available assimilative capacity has to remain unused as a margin. In contrast, ADEQ’s proposed approach provides a 90% margin. A 90% margin is not defensible and should not be pursued. The 90% margin is too conservative given that Tier 2 waters are already doing better than standards; therefore there is no issue of adequately protecting water quality. Changes consistent with these concerns should be made throughout the draft implementation procedures as appropriate.

**Response:** ADEQ agrees that the antidegradation implementation procedures should include a definition of “minimal degradation.” ADEQ also agrees, in part, with the proposed definition of “minimal degradation” as the consumption of less than 10% of the assimilative capacity for a pollutant in a surface water. However, ADEQ disagrees that the definition of “minimal degradation” should be used to support an exemption from antidegradation review for *de minimis* discharges. ADEQ did not propose a “*de minimis*” exemption in the draft antidegradation implementation procedures document similar to that provided by other states such as New Mexico. On the contrary, ADEQ states in the draft antidegradation implementation procedures that all point source discharges regulated under the AZPDES permit program are subject to antidegradation review.

ADEQ is not opposed to defining “minimal degradation” for purposes of clarifying when comprehensive Tier 2 antidegradation implementation procedures apply. The definitions of “minimal degradation” and “significant degradation” are relevant only to the determination of the type of antidegradation review triggered under Tier 2 of the ADEQ antidegradation rule. “Significant degradation” (defined as the consumption of 10% or more of the assimilative capacity for a pollutant or parameter) triggers a comprehensive Tier 2 antidegradation review, including requirements to provide an alternatives analysis and a social and economic justification to allow significant degradation. “Minimal degradation” does not trigger a comprehensive Tier 2 antidegradation review. ADEQ agrees that “minimal degradation” should be defined as the converse of “significant degradation” (*i.e.*, the consumption of less than 10% of the assimilative capacity for a

pollutant or parameter). ADEQ will include a definition of “minimal degradation” in the glossary to the draft antidegradation implementation procedures.

**5. Comment:** Definition of “Regulated Activity” (p. vi): The Coalition believes that this definition should be revised to delete the language that implies that non-point source activities are subject to antidegradation review. As clarified by the court in *American Wildlands v. Browner*, 260 F.3d 1192 (10<sup>th</sup> Cir. 2001), the federal Clean Water Act does not give EPA the authority to regulate non-point source discharges. According to the court, this means that states are not required to regulate non-point source discharges through antidegradation review. There is no compelling reason for extending antidegradation review to non-point sources in Arizona. Non-point sources are required to be addressed under state law through a program separate from the state’s water quality standards [See A.R.S. § 49-203(A)(3)]. In addition, water quality impacts from non-point sources can be addressed under the Total Maximum Daily Load (“TMDL”) program through adoption of TMDLs for water segments not meeting applicable surface water quality standards.

**Response:** ADEQ disagrees that the definition of “regulated activity” should be revised to delete language related to non-point source pollution. The antidegradation rule applies to both point and non-point sources of pollution. This is expressly stated in the federal antidegradation policy in 40 CFR §131.12(a)(2) and in the ADEQ antidegradation rule at R18-11-107(C)(3). Both the federal and state antidegradation rules require implementation of all cost-effective and reasonable best management practices for non-point source control before allowing significant degradation of a high quality surface water as part of a Tier 2 antidegradation review.

It is true that the Clean Water Act does not establish a regulatory program to control non-point source pollution. Moreover, ADEQ has not adopted a state regulatory program to control non-point source discharges of pollutants pursuant to its authority at A.R.S. §49-203(A)(3). However, this does not mean that non-point source pollution will remain unregulated in Arizona. For example, A.R.S. §49-202.01 provides statutory authority for development and implementation of a surface water quality general grazing permit consisting of voluntary best management practices for grazing activities which have been determined to be the most practical and effective means of reducing or preventing the nonpoint source discharge of pollutants into surface waters. To the extent an individual or general permit or some other regulatory control document exists to regulate a non-point source discharge of pollutants, that regulatory control document would be subject to antidegradation review.

**6. Comment:** The first phrase in the definition [of “regulated activity”] should be revised to clarify that “regulated activity” means any activity that requires a “surface water discharge” permit or water quality certification under state or federal law. As currently drafted the language could be interpreted to apply to any activity that requires any type of permit under federal or state law.

**Response:** ADEQ agrees that the definition of regulated activity should be revised to clarify that the reference to “any activity that requires a permit....pursuant to a state or federal law” means an AZPDES or NPDES or any federal permit or license that is subject to CWA §401 water quality certification.

**7. Comment:** The last phrase in the definition of “regulated activity” should be amended by inserting the words “surface water quality” just before the word “regulations.” This change is necessary to clarify that antidegradation review should apply to other types of activities (other than surface water discharge permits and water quality certifications) when the activities are subject to state “surface water quality” regulations, not just any type of state regulation.

**Response:** ADEQ agrees and has revised the definition of “regulated activity” as recommended by the commenter.

**8. Comment:** Definition of “Water Quality Criteria” (p. vii): This definition should be revised to reference Arizona’s surface water quality standards, consistent with the first sentence in Section 1.2 of the draft implementation procedures which reads as follows: “Water quality standards, including designated uses and associated water quality criteria can be found in A.A.C. Title 18, Chapter 11, Article 1.”

**Response:** ADEQ disagrees. The definition of “water quality criteria” in the glossary of the draft guidance document is consistent with the definition of “criteria” found in the ADEQ surface water quality standards rules at R18-11-101(16).

**9. Comment:** Section 1 (p. 1-1): Consistent with the proposed definition of “regulated activity” and with the comments set forth above on the proposed definition of “regulated activity,” the second sentence in this section should be revised as follows:

Such activities include those that require a surface water discharge permit or a water quality certification pursuant to state or federal law, ~~any activity subject to nonpoint source regulations,~~ and any activity which is otherwise subject to state requirements and regulations that protect surface water quality and that specify that the antidegradation review process is applicable.

**Response:** ADEQ agrees that the definition of “regulated activity” should be clarified by referencing current types of surface water discharge permits. However, ADEQ believes that specific references to National Pollutant Discharge Elimination System (NPDES) or Arizona Pollutant Discharge Elimination System (AZPDES) permits are preferable to “surface water discharge permit.”

ADEQ disagrees with the proposed deletion of regulated non-point source discharges from the definition of “regulated activity.” Current federal guidance on antidegradation and non-point source pollution specifically states that non-point source discharges are not exempt from antidegradation requirements. While it is true that ADEQ currently does not have a state regulatory program to control non-point source discharges and no

regulatory control mechanisms (e.g., a permit) are in place to control non-point source discharges that are subject to ADEQ antidegradation review, that does not mean that regulatory programs to control non-point source pollution will not be developed in the future. ADEQ has statutory authority under A.R.S. §49-203(A)(3) to “[a]dopt, by rule, a program to control non-point source discharges of any pollutant or combination of pollutants into navigable waters.” In fact, the Arizona Legislature has already established a surface water quality general grazing permit under A.R.S. §49-202.01 to control non-point source discharges of pollutants to surface waters from grazing activities and has directed ADEQ to implement it as part of duties established by A.R.S. §49-203(A)(3). ADEQ believes that antidegradation requirements apply to *regulated* non-point source discharges and that the antidegradation implementation procedures guidance document should make this position clear.

## **Chapter 1: Overview of Arizona’s Antidegradation Approach**

**10. Comment:** The document’s stated purpose is to guide regulatory activity that could potentially degrade water quality. The statement “serious degradation is prohibited by all tiers of the antidegradation rule” (pg.1-2) does not accurately reflect the contents of the document because it appears that degradation to Tier 1 waters is easily permitted. We suggest that the Tier 1 protections be revised to reflect both the statement above and the requirements of the Clean Water Act.

**Response:** ADEQ disagrees with the comment that the statement, “serious degradation is prohibited by all tiers of the antidegradation rule,” is inaccurate. On page 1-2 of the antidegradation implementation procedures document, ADEQ defines “serious degradation” as “degradation causing a violation of water quality criteria or loss of existing use.” In other words, “serious degradation” means a degradation of water quality that causes a violation of an applicable surface water quality standard. Serious degradation is prohibited by Tier 1 of the antidegradation rule which applies to all surface waters as a minimum level of water quality protection. Tier 1 antidegradation protection requires that the level of water quality necessary to protect existing uses be maintained and protected. ADEQ interprets Tier 1 antidegradation protection as requiring that water quality standards be achieved and that no degradation is permitted if water quality is at or not meeting existing water quality standards.

ADEQ also disagrees with the comment that degradation of Tier 1 waters is easily permitted under the draft antidegradation implementation procedures. The comment appears to indicate a misunderstanding of the nature of antidegradation protection afforded by the Tier 1 antidegradation rule and the draft implementation procedures. Tier 1 antidegradation protection applies to all surface waters and it establishes a basic “floor” of antidegradation protection. Tier 1 protection means that applicable water quality standards for a surface water must be maintained and protected. Tier 1 antidegradation protection means that water quality cannot be degraded to the point that an applicable water quality standard is violated for a pollutant. In an impaired surface water where existing water quality does not meet applicable water quality standards (i.e., a §303(d) listed water); Tier 1 protection means that existing water quality must be



maintained and no degradation of water quality is allowed. Further degradation of an impaired water is prohibited by Tier 1 of the antidegradation implementation procedures.

**11. Comment:** The document states “degradation is generally assumed to be significant if the activity results in the reduction of a water body’s assimilative capacity for any parameter of concern by 10 percent or more during critical flow conditions”(pg.1-3). The statement itself is fine, but the fact is that because Baseline Water Quality (BWQ) will not be established for many of the state’s waters, the majority of the state’s waters will not get the protection of these antidegradation procedures. (See page 3-2 of the document where it states that BWQ is not required for the majority of permitted activities discharging to Tier 1 waters.) We are especially concerned about the effects on ephemeral and intermittent waters and would like to see those addressed in a more protective manner than is indicated in this document. The agency states in Section 1.3 that Tier 2 protections are based on BWQ. How can the Arizona Department of Environmental Quality (ADEQ) meet the mandates of the Clean Water Act if the BWQ is not determined for most of our waters?.

**Response:** The basic purposes of the antidegradation rule are to maintain and protect existing surface water quality, prevent further degradation of impaired waters, limit or minimize degradation of high quality surface waters, and to prohibit the degradation of the state’s unique waters. ADEQ agrees with the Sierra Club that the maintenance and protection of existing water quality is fundamental to full implementation of the antidegradation rule. ADEQ agrees that the determination of baseline water quality is absolutely necessary to protecting existing water quality. However, there are significant challenges to making baseline water quality determinations for ephemeral and intermittent waters. How should ADEQ make baseline water quality determinations for surface waters that only flow for short periods of time because of melting snow or spring sources (intermittent waters)? For both ephemeral and intermittent waters in Arizona, there are extended periods of time where there is no flow in the water course at all. That is, there is no water in the watercourse and no existing water quality to protect. ADEQ has determined that Tier 2 of the antidegradation rule and the protection of existing water quality cannot practically be implemented in ephemeral and intermittent waters because of the lack of water in these surface waters. It is not practical to protect existing water quality in ephemeral and intermittent waters because of the lack of water and the difficulty of establishing baseline water quality in them.

This conclusion does not mean that water quality in intermittent and ephemeral waters is unprotected under the antidegradation rule. ADEQ will treat ephemeral waters and intermittent waters as Tier 1 waters and require that applicable water quality standards and technology-based requirements of the Clean Water Act be met. ADEQ has adopted surface water quality standards that apply to intermittent and ephemeral waters. Discharges to intermittent and ephemeral waters must comply with water quality standards that have been adopted to protect both human health and aquatic life.

**12. Comment:** The default protection of Tier 1 waters is that “degradation of existing water quality is prohibited where parameters of concern do not meet applicable water

quality standards.” Doesn’t this conflict with the need to “improve” the water quality, especially for waters that are already impaired?

**Response:** ADEQ sees no conflict between the proposed Tier 1 antidegradation implementation procedures and the need to improve water quality in an impaired surface water. The goal of Tier 1 antidegradation procedures is to prohibit further degradation of impaired waters, a necessary pre-condition to the restoration and improvement in water quality in an impaired water. To use a medical analogy, the Tier 1 antidegradation implementation procedures are intended to “stop the hemorrhaging” with respect to an impairment of water quality and to prevent further degradation of an impaired water. ADEQ has another water quality management program designed to improve water quality in impaired waters called the Total Maximum Daily Load (TMDL) program. The objective of the TMDL process is to systematically identify impaired waters and the pollutants causing water quality impairments and ultimately to establish a scientifically-based strategy - a TMDL – for correcting the impairment and restoring water quality in those impaired surface waters. TMDLs are developed for parameters of concern that violate applicable water quality standards that are listed on the state’s §303(d) list. All surface waters that are listed on the 303(d) list are considered to be Tier 1 waters for the pollutant[s] that cause the surface water to be listed. The Tier 1 antidegradation implementation procedures support the TMDL process by prohibiting further degradation of already impaired waters.

**13. Comment:** Section 1.3 (pp. 1-2 through 1-3): In the first paragraph in this section, there is a parenthetical statement that defines “minimal degradation” as “little or no change in any parameter of concern.” The parenthetical statement should be changed to read as follows: “(consumption of less than 10 percent of the assimilative capacity for a particular parameter when at least 10 percent of the assimilative capacity for the parameter will remain unused).”

**Response:** ADEQ agrees that the definition of “minimal degradation” should be changed from “little or no change in any parameter of concern” to the more objective criterion of “consumption of less than 10% of assimilative capacity for a parameter.”

ADEQ does not agree with including the suggested phrase “...when at least 10% of the assimilative capacity for the parameter will remain unused” in the definition of minimal degradation. In ADEQ’s view, the latter phrase is confusing because it suggests that a point source discharge may consume up to 90% of the available assimilative capacity in a surface water and still be considered “minimal” degradation.

**14. Comment:** In the third sentence of the first paragraph in this section, there is language describing degradation as including the “deterioration of narratively described water quality parameters.” Other sections in the draft implementation procedures suggest that antidegradation review will apply to narrative standards (*see* Table 2-1 (p. 2-1), Section 3.2 under the heading “Comprehensive Tier 2 Antidegradation Review Procedure for Perennial Waters” (p. 3-4, second paragraph), and Section 4.5 (p.4-5, first paragraph) but do not address how antidegradation will be practically applied to narrative standards

or criteria. In the absence of objective means to accomplish this, antidegradation review should not apply to narrative standards or criteria.

**Response:** ADEQ agrees that narrative standards should not be used in antidegradation reviews in the absence of objective means of determining degradation of water quality conditions based on narrative standards. ADEQ will remove references to narrative standards in the antidegradation implementation procedures.

**15. Comment:** The two areas of greatest concern in this document are first; the need to place the procedures and policy in rule and second; to abandon any use of the narrative standards to define degradation of a water body. The placement of key portions of this document into rule insures that objective criteria are definitively quantified in a public process. The abandonment of any narrative standards, which cannot be objectively quantified, will enhance the consistent applicability of the antidegradation review.

**Response:** ADEQ agrees that key elements of the antidegradation implementation procedures should be adopted by rule [See responses to previous comments related to rule vs. policy ]. ADEQ also agrees that narrative water quality standards should not be used to implement antidegradation requirements in the absence of objective criteria for making determinations of degradation based upon those narrative standards.

**16. Comment:** Narrative standards cannot be utilized to determine degradation until the narrative implementation procedures conform to state and federal rule. In Section 3.3 AZPDES permit limits and antidegradation requirements of the proposed antidegradation implementation procedures, permit limits for ephemeral, intermittent and effluent dependent waters will be based upon numeric or narrative water quality standards for the water body under review, as described in A.A.C. Title 18, Chapter 11.

However, as stated in stakeholder meetings as well as in the 2002 Triennial Review, the Department agrees that “rulemaking procedures must be used to specify the objective basis for determining violations of narrative standards for purposes of listing impaired waters under §303(d) of the Clean Water Act [as required by A.R.S. §49-232 (C)(4) and (F)].” The Department also noted that “the antidegradation rule is a narrative standard.” Thus, narrative standards should not be applied until the development of the narrative standards in rule, and this interpretation of the law by the Department should be clearly set forth in rule. The primary difficulty of application of narrative standards to antidegradation requirements is the risk of a purely subjective evaluation of the standard. The *Water Quality Standards Handbook: Second Edition* (EPA, 1984) states, “...the Water Quality Standards Regulation requires states to develop implementation procedures. Such procedures should address all mechanisms to be used by the state to ensure that narrative criteria are attained.” Also, “State implementation procedures for narrative toxics criteria should describe the following: Specific, scientifically defensible methods by which the State will implement its narrative toxics standard for all toxicants...” 40 CFR 122.44(d)(1)(ii) states, “When determining whether a discharge causes, has reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a state water quality standard, the permitting authority shall use procedures which account for existing controls on point and

non-point sources of pollution, the variability of the pollutant parameter in the effluent, the sensitivity of the species to toxicity testing, and where appropriate, the dilution of the effluent in the receiving water.”

The above paragraph requires that for evaluation of narrative water quality criteria, prior to declaration of an exceedance of a narrative standard, ADEQ is required to:

- Positively establish the chemical identity of the pollutant(s),
- Determine the variability of the pollutant in the water course, and
- Establish the potential toxicity to WET test species.

The establishment of degradation would be debatable without an historical record of the chemical-specific or numeric parameters which lead to an exceedance of a narrative standard. For instance, the determination of toxicity to test species will require years of study in order to consider the myriad of matrix, temperature, pH, etc., effects .

**Response:** ADEQ agrees that narrative standards should **not** be used to implement the antidegradation rule in the absence of objective criteria for determining degradation of water quality based upon the narrative criteria. ADEQ agrees that, without objective criteria, there is a real risk of subjective and inconsistent agency determinations of degradation by ADEQ. For example, it is difficult to conceptualize how ADEQ could make baseline water quality determinations and determine available assimilative capacity and whether significant degradation was occurring in a Tier 2 surface water using the narrative toxics standard. This conclusion does not preclude future development of objective criteria by ADEQ to implement narrative water quality standards and the antidegradation rule. ADEQ acknowledges that objective criteria to implement narrative criteria do not exist at the present time and they are not included in the final antidegradation implementation procedures guidance document. For this initial iteration of ADEQ’s antidegradation implementation procedures, antidegradation reviews will be based on numeric surface water quality standards only.

For the record, ADEQ disagrees with that portion of the Pima County Wastewater Management Department comment stating that prior to ADEQ finding that there is an exceedance of the narrative toxics standard, ADEQ must positively identify a specific chemical pollutant, determine the variability of the pollutant in the surface water, and establish the potential toxicity to WET test species. However, ADEQ will not respond to the substance of these comments here because it is more appropriate to address these issues related to the narrative toxics standard during the stakeholder process that ADEQ will use to develop implementation procedures for that standard.

**17. Comment:** In the last paragraph in this section, there is a sentence that provides that while ADEQ will allow for up to a 10% consumption of the available assimilative capacity for a particular water body, once the 10% allowance is used up, it is not available for subsequent activities. The Coalition strongly opposes this determination and believes that it will place inappropriate limits on the regulated community with respect to potential expanded or add new discharges to Tier 2 waters. In essence,

ADEQ's proposed approach would only allow for consumption of 10% of assimilative capacity (*i.e.*, a 90% buffer) before triggering the requirement to conduct an alternative analysis and to demonstrate "important economic or social development." The Coalition believes that this approach is not justified on either a technical or economic basis. We are not aware of any other states that have taken such an approach.

**Response:** The purpose of the Tier 2 antidegradation implementation procedures is to maintain and protect existing water quality in Arizona's high quality surface waters. ADEQ thinks it is entirely appropriate and consistent with the intent of the Tier 2 antidegradation rule to place strict limits on the consumption of available assimilative capacity of Arizona's high quality surface waters. The purpose of the Tier 2 rule is to maintain and protect high quality surface waters, not to facilitate their slow degradation over time by making it easier to permit expanded or new discharges. It should be noted that the antidegradation implementation procedures do not absolutely prohibit consumption of more than 10% of the available assimilative capacity of a Tier 2 water. The consumption of 10% of the available assimilative capacity in a high quality surface water does **not** preclude future growth and development or new and expanded discharges to a high quality surface water. It does mean that the regulatory bar is higher if new and expanded discharges are proposed that result in degradation of a high quality surface water after 10% of the available assimilative capacity is consumed. New and expanded discharges resulting in further degradation of water quality are not prohibited by the Tier 2 rule, but such degradation (defined as "significant" by these implementation procedures) must be justified by an alternatives analysis and a demonstration that significant degradation is necessary for important economic or social development. ADEQ thinks it is appropriate to require that alternatives to further degradation be evaluated and that further water quality degradation be justified by a showing that it is necessary to accommodate important social and economic development in the area of the Tier 2 surface water. ADEQ should apply a high level of antidegradation protection and regulatory oversight to maintain and protect existing water quality in the Arizona's Tier 2 waters. A high level of protection is particularly important in an arid state like Arizona, where high quality, perennial surface waters (Tier 2 waters) are in relatively short supply.

Arizona is not alone in using 10% of available assimilative capacity as the threshold for defining significant degradation under the Tier 2 rule. Several Western states use some percentage of available assimilative capacity as a test for discharge significance. Significance tests range from 10% to 33% of assimilative capacity. For example, New Mexico's draft antidegradation procedures state that the New Mexico Department of Environmental Protection shall conduct a Tier 2 review for any new or increased discharge or renewal of a permit for an existing discharge that would cause a reduction in the available assimilative capacity of 10% or more for a parameter of concern. The State of Colorado antidegradation implementation procedures state that a 10% or more increase in loading or a change of 15% in assimilative capacity is considered significant degradation.

**18. Comment:** Section 1.4 – General Coverage (p.1-4): In order to be consistent with the proposed definition of “regulated activity,” the last phrase in this paragraph should be revised as follows:

and other regulated activities, ~~both point and nonpoint sources~~, which can degrade surface water quality and to which antidegradation review is applicable because of specific regulatory language.

**Response:** ADEQ disagrees with the suggestion that ADEQ adopt rule language specifically listing the regulated activities that are subject to antidegradation review. A specific list may be either under-inclusive or over-inclusive and it will change over time. The rule could quickly become obsolete and may require frequent rulemakings to amend and update as new regulatory programs come into existence or existing programs are amended.

#### *Antidegradation and Non-Point Sources*

**19. Comment:** Section 1.4 – Nonpoint Source Coverage (pp. 1-4 through 1-5): For the reasons set forth above, this entire subsection should be deleted. There is no legal or other rational basis upon which to impose antidegradation review on non-point sources. As noted above, water quality concerns from non-point sources can be addressed through the TMDL development process. In addition, the language in 40 C.F.R. § 131.12(a)(2) regarding achieving all cost-effective and reasonable best management practices for non-point source control does not mean that non-point sources are subject to antidegradation review. This language is appended to a requirement that requires that states assure that all new and existing point sources achieve the highest statutory and regulatory requirements. This requirement, and the related requirement for non-point sources, is not related to antidegradation review but rather is a substitute for such review.

**Response:** ADEQ disagrees. There are clearly both legal grounds and technically sound reasons for regulating non-point sources of pollution under the antidegradation rule. EPA has stated specifically in several EPA guidance documents that the federal antidegradation policy applies to both point and non-point sources of pollution [*See, Answers to Questions on Nonpoint Sources and WQS*, EPA memorandum from Lawrence J. Jensen, Asst. Administrator for Water to Robert Burd, Water Division Director, EPA Region IX (March 27, 1986); *Interpretation of Federal Antidegradation Regulatory Requirement*, EPA memorandum from Tudor T. Davies, Director of Office of Science and Technology to Water Management Division Directors, EPA Regions I – X (February 22, 1994)].

More importantly, there are good technical reasons for preserving an ADEQ ability to regulate non-point source discharges under the antidegradation rule. It is widely accepted that non-point source pollution is now considered to be the single largest cause of water pollution throughout the nation. ADEQ

acknowledges this fact in its most recent §305(b) water quality assessment. ADEQ states that most of the pollution of Arizona surface waters is contributed by non-point sources. The following table, reproduced from the draft 2004 water quality assessment, dramatically illustrates this point:

**Table 39. Point and Nonpoint Source Contribution to Impairment**

	Streams, canals, and washes (miles)	Lakes and reservoirs (acres)
Point Sources	6	15
Non-Point Sources	735	23,115

It is clear from Table 39 above that non-point sources of pollution are the major source of water quality impairment in Arizona surface waters. If ADEQ adopts rules establishing regulatory programs under A.R.S. §49-203(A)(3) to address the significant problem of non-point source pollution, ADEQ will want to have the requirements of the antidegradation rule in the regulatory “toolbox” to maintain and protect water quality. For this reason alone, ADEQ should not exempt non-point source discharges from its antidegradation implementation procedures.

**20. Comment: 1.4 Coverage and General Applicability** The non-point source activities in Arizona are presumed to meet antidegradation requirements if they comply with “the conditions or BMPs noted in their respective individual or general permit.” (pg.1-4 & 1-5) The assumption that a pre-existing permit automatically provides adequate protection does not ensure actual protection. Any new proposed activity that could contribute to degradation should be reviewed in the context of what is actually occurring. The ADEQ should have some monitoring data to indicate that degradation is not occurring. It should also follow up to ensure that Best Management Practices (BMPs) are being implemented and that they are being implemented properly. Finally, there should be some data that indicate that while the permits are being followed, the water quality is not degrading. Just because the agency or a polluting entity says it’s so does not make it so.

**Response:** ADEQ will conduct individual antidegradation reviews of individual AZPDES and §404 permits but it is not possible to conduct an individual antidegradation review of every discharge authorized by a general permit or a nationwide §404 permit. The basic concept of a general permit is to authorize multiple discharging facilities or dredge-and-fill activities having similar discharge characteristics. The authorization to discharge is on a categorical basis and individual permits are not written. General permits are developed for discharging facilities that involve the same or substantially similar types of operations, that discharge the same types of pollutants, and that can be efficiently regulated to protect water quality with the same types of permit limits or conditions. General permits are an efficient and cost-effective way for ADEQ to permit a large number of facilities or activities having common elements under a

single permit. The use of general permits allows ADEQ to allocate resources in an efficient way and to provide more timely permit coverage for large numbers of facilities. For example, ADEQ may cover a large number of facilities that have elements in common under a general permit and adequately protect the environment without expending the time and money necessary to issue an individual permit to each discharging facility. In the same way, the antidegradation review of a general permit can be conducted on a categorical basis.

### **Coordination with 305(B) Assessment and 303(D) Listing**

**21. Comment** Part of the ADEQ's responsibility under the Clean Water Act is to identify the waters that do not meet water quality standards, list those waters as impaired, and take action to ensure that the waters meet the standards in a timely fashion. We are somewhat confused by how Tier 1 protection for an impaired water is consistent with this. In Tier 1 waters "No further degradation of existing water quality is permitted in a surface water where the existing water quality doesn't not meet applicable water quality standards." We would argue that not only is no further degradation allowed, but improving water quality is required.

**Response:** ADEQ has a duty under §303(d) of the Clean Water Act to identify impaired waters that do not meet water quality standards and to conduct Total Maximum Daily Load (TMDL) analyses for those impaired waters. TMDLs include the development of implementation plans that are designed to improve water quality so that water quality standards are achieved. The antidegradation and TMDL provisions of the Clean Water Act have different regulatory purposes but they complement each other. Preventing further degradation of impaired waters under Tier 1 of the antidegradation rule is entirely consistent with ADEQ's duty to restore those impaired waters to health through the TMDL program. Tier 1 establishes the regulatory requirement that establishes a "floor" for water quality protection for all surface waters in Arizona. Tier 1 prohibits further degradation of impaired waters. As explained in an earlier comment, one of the purposes of the antidegradation rule is to prohibit further degradation of impaired waters. In effect, the antidegradation rule "draws the line" in the water to prevent water quality from getting worse.

**22. Comment:** In the *Tier 2 Protection* section, we suggest that when an assessment demonstrates that "significant degradation of a water body is occurring, but water quality standards have not been violated" that ADEQ should automatically "conduct a study to look at the extent and sources(s) of degradation to determine likely trends and explore possible antidegradation actions." Should the agency wait until the standards are violated before taking action? We think not. Likewise under *Tier 3 Protection*, ADEQ should automatically conduct a study and determine how to implement antidegradation actions.



**Response:** ADEQ discusses coordination between antidegradation requirements and §305(b) water quality assessments and §303(d) listings in §1.5 of the Antidegradation Implementation Procedures guidance document. Regarding §305(b) water quality assessments and Tier 2 waters, ADEQ states that if a §305(b) water quality assessment shows that significant degradation of a water body is occurring, but water quality standards are not being violated, ADEQ *may* conduct a special study of the extent and sources of degradation to determine likely trends and to explore possible antidegradation actions. ADEQ will not commit to conducting water quality investigations in all cases where a water quality assessment shows that significant degradation is occurring when it may not have the resources to follow through on that commitment.

ADEQ does not have unlimited staff nor an unlimited budget to conduct water quality investigations in all cases of degradation. ADEQ must preserve its discretion to allocate agency resources to address the most pressing water quality problems. ADEQ resources are dedicated primarily to investigating water quality problems associated with surface waters that have been identified as impaired waters by a §305(b) water quality assessment. ADEQ investigates impaired waters where water quality standards are being violated to understand the causes of water quality impairment and, through TMDL analyses, develop implementation plans to restore water quality in those waters. ADEQ places a higher priority on addressing the water quality problems of impaired waters. The reality is that ADEQ has enough TMDL work to do to keep its monitoring staff fully employed doing water quality investigations and TMDLS for impaired waters for the next ten years. ADEQ cannot create a requirement to perform water quality investigations of significant degradation in Tier 2 waters without a corresponding increase in personnel and budget to carry out that duty effectively.

**23. Comment:** Section 1.6 (pp. 1-7 through 1-8): The first sentence of the last paragraph should be revised by changing the word “activities” to “discharges.” The use of the word “activities” erroneously suggests that an antidegradation review can be triggered by new or expanded activities, even if the new or expanded activity does not result in a regulated discharge that requires a permit or water quality certification. A similar change should be made throughout the draft implementation procedures whenever “new or expanded activities” is used in place of the more appropriate term “new or expanded discharges.” This change also is more consistent with language towards the end of the last paragraph in Section 1.6 (emphasis added) that provides that “an applicant *discharging* into a perennial water body” should meet with ADEQ in a pre-application conference.

**Response:** ADEQ agrees that “discharges” is a more appropriate term than “activities” and has revised the text of the guidance document as recommended by the commenter.

**24. Comment:** The recommendation that an applicant with a potential discharge to a perennial water body should meet with ADEQ at least two years prior to

permit issuance should be removed and replaced with a recommended time frame that is more consistent with the current licensing time-frames. The current licensing time frames for AZPDES permits are found in A.A.C. Title 18, Chapter 1, Article 5, Table 10, and are no longer than approximately one year for an individual permit for a major facility with a public hearing (shorter time frames are given for other types of individual permits). Similar changes should be made throughout the draft implementation procedures.

**Response:** ADEQ disagrees. ADEQ recommends on p. 3-5 of the guidance document that an applicant for an AZPDES permit for a point source discharge to a perennial water meet with ADEQ in a pre-application conference at least two years prior to permit issuance. A pre-application conference does not trigger licensing time frame requirements. On the contrary, the purpose of a pre-application conference is to help an AZPDES permittee understand AZPDES permit application requirements, including data needs and information requirements for Tier 2 antidegradation analyses. Licensing time frames are not triggered until submittal of the AZPDES permit application to ADEQ for administrativeness completeness review. Activities conducted prior to submittal of an AZPDES permit application to the agency are not and should not be constrained by licensing time frames.

**25. Comment: 2-Tiered Protection Levels:** The chart on pg. 2-1 begs a question— Could allowing a pollutant to discharge to the ephemeral and intermittent streams, since no BWQ standards are required for those streams, allow increased polluted runoff into perennial water bodies? Many intermittent and ephemeral water bodies feed into perennial water bodies. Thus, establishing a higher level of protection for ephemeral and intermittent water bodies can help to protect the water quality in the perennials and limit degradation. Likewise, ignoring the water quality in the ephemeral waters can lead to degradation of the perennial waters. People and wildlife who utilize these waters do not question whether they are ephemeral, intermittent or perennial. When there is water present, they likely use them and they of course do not generally know that there is lesser protection. We advocate for strong protection of all of Arizona’s water bodies for that very reason. It is in the best interest of the people and wildlife that inevitably come into contact with Arizona waters.

**Response:** The Sierra Club comment implies that the proposed antidegradation implementation procedures leave intermittent and ephemeral waters with inadequate water quality protections to protect downstream perennial waters. ADEQ’s proposed implementation procedures do not ignore water quality concerns in ephemeral and intermittent waters nor will they leave downstream perennial waters at risk. On the contrary, the antidegradation rule requires that a discharge to an ephemeral or an intermittent water comply with applicable surface water quality standards that have been established to protect human health and aquatic life.

It is true that Arizona’s 3-tiered antidegradation rule treats ephemeral and intermittent waters (Tier 1) differently than high quality perennial waters (Tier 2) and unique waters (Tier 3). However, these differences in regulatory treatment for Tier 1, 2, and 3 surface

waters under the state antidegradation rule are fully consistent with federal and state antidegradation policy.

The basic purpose of the antidegradation rule is to maintain and protect existing water quality. It is easier to think about how this purpose is achieved in “wet” surface waters where streams have water and existing water quality to protect. It is more difficult to conceptualize how ADEQ should go about protecting existing water quality in normally dry watercourses. Antidegradation analysis and the fundamental concept of protecting existing water quality begins to break down where there is no existing water quality to protect. ADEQ’s proposed regulation of ephemeral and intermittent waters under the antidegradation rule as a Tier 1 water is a practical response to the hydrological conditions that are typical of these types of streams in Arizona. An ephemeral water is, by definition, normally dry most of the time and it flows only in direct response to a local storm event. Flows in ephemeral waters are unpredictable and it is practically impossible for ADEQ to collect data to characterize baseline water quality for them. In most cases, an ephemeral water may flow for only a few hours or a few days. ADEQ made the pragmatic decision to treat ephemeral waters and intermittent waters as Tier 1 waters and apply the basic “floor” of antidegradation protection to them. That is, require that discharges comply with applicable standards designed to protect human health and aquatic life.

**26. Comment:** Section 2.2 – Listing or Revising Tier Assignments (pp. 2-2 through 2-3): The requirements for nominating and classifying unique waters are established in Arizona’s surface water quality standards (*see* A.A.C. R18-11-112). The last two sentences of Section 2.2, however, suggest that in the information cited in Table 2-2 is how a water body is nominated and potentially classified as unique. The unique water regulation at A.A.C. R18-11-112 should not be replaced by Table 2-2. Table 2-2 should be removed from the draft implementation procedures and the last two sentences of Section 2.2 revised as follows:

Any person may nominate surface water for Tier 3 (unique water) protection by following the steps and providing the information cited in ~~Table 2-2. In considering a classification, ADEQ will review the criteria outlined in Table 2-2~~ A.A.C. R18-11-112.

**Response:** ADEQ agrees. A cross-reference to the unique waters rule, R18-11-112, would be more concise and accomplish the same purpose. ADEQ did not intend to replace the unique waters rule with Table 2-2. ADEQ included Table 2-2 in the guidance document for information purposes so readers would not have to consult the Arizona Administrative Code to fully understand Tier 3 antidegradation implementation procedures.

## Antidegradation Review Requirements

**27. Comment:** The antidegradation review is based on: the protection tier assigned to the receiving water body, the type of receiving water, BWQ in receiving water, projected impacts, and what the proposed activity is. Please clarify the statement “If other parameters are better than applicable water quality standards, the perennial water segment will be afforded Tier 2 protection for those parameters.” What are those parameters?

**Response:** ADEQ was trying to clarify that antidegradation reviews and the tier assignments are on a parameter-by-parameter basis. That is, the same surface water could be a Tier 1 water with respect to pollutant X and a Tier 2 water with respect to pollutants Y and Z. The parameters of concern in an antidegradation review are identified through characterization of the pollutants in the discharge under review.

**28. Comment:** Section 3 (p. 3-1): The last phrase in the second sentence of the second paragraph in this section should be revised to be consistent with the definition of “regulated activity” and the suggested revisions to the definition as noted above. Specifically, the phrase should be amended as follows: “and runoff of pollutants ~~or nonpoint pollution from regulated~~ any activities which are otherwise subject to state surface water quality regulations that specify that the antidegradation review process is applicable.”

**Response:** ADEQ disagrees that it should specify in rule the activities that are subject to antidegradation review. Any list specifying which discharges are subject to antidegradation review runs the risk of being over- or under-inclusive.

**29. Comment: Waters Subject to Antidegradation Protection:** The document states that intermittent and ephemeral streams are subject to antidegradation protection. We are not convinced that is the case in the context of this document.

**Response:** Intermittent and ephemeral streams are identified as Tier 1 waters under the antidegradation rule and they are subject to Tier 1 antidegradation protections.

**30. Comment:** Section 3.2 Antidegradation Review Requirements by Tier – Tier 3 (pp. 3-6 through 3-7): The Coalition does not concur with the ADEQ proposal to prohibit any proposed new or expanded discharge to unique waters, unless the applicant demonstrates that the impacts are temporary. The proposed absolute prohibition does not recognize that new discharges or expansions of existing discharges can be addressed by increasing treatment levels to maintain existing pollutant loading or concentration levels. What is the rationale for an absolute prohibition on a new or expanded discharge that will not result in increase loadings or concentration levels to a stream? This prohibition also appears to be inconsistent with language in the fourth paragraph on page 3-7 that implies that a proposed new or expanded discharge directly to unique water may be authorized if the proposed activity is temporary or if changes to water quality will be minimal.

With respect to new or expanded discharges to areas or tributaries upstream of unique waters, ADEQ states at the top of page 3-7 that it “will impose whatever controls are necessary on regulated discharges to tributaries of unique waters to maintain and protect existing water quality in a downstream unique water.” In contrast, ADEQ states in the fifth paragraph on page 3-7 that new or expanded discharges upstream of unique waters will be prohibited unless the source will improve or not degrade the existing water quality of the downstream unique water. These statements and the intended approach regarding discharges to areas upstream of unique waters should be carefully reviewed and discussed with stakeholders.

**Response:** ADEQ has recognized only 18 surface waters as unique waters since adoption of the state antidegradation rule recognizing Tier 3 waters in 1979. Arizona’s unique waters are synonymous with “outstanding national resource waters” [ONRWs] protected by Tier 3 of the federal antidegradation policy. ONRWs or unique waters are to be provided the highest level of protection under both the federal and the state antidegradation policies by prohibiting the lowering of water quality.

R18-11-107(C) requires that water quality be maintained and protected in unique waters. ADEQ (and EPA) interpret this provision to mean that no new or increased discharges to a unique water and no new or increased discharge to tributaries to a unique water that would result in lower water quality in a unique water [See *Water Quality Standards Handbook, Second Edition*, Section 4.7, Outstanding National Resource Waters (ONRW) – 40 CFR 131.12(a)(3), p. 4-10]. The only exception to this prohibition, as discussed in the preamble to the federal Water Quality Standards Regulation (48 Federal Register 51402), permits states to allow some limited activities that result in temporary and short-term changes in water quality in an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW.

All of the unique waters in Arizona are located in wilderness areas or relatively remote areas where there is little or no commercial, industrial, or residential development. With the exception of Oak Creek, none of the 18 unique waters have an existing AZPDES-permitted point source discharge to them. For more than 25 years, the state has had a “no further degradation” policy in place to protect the state’s unique waters. In ADEQ’s opinion, any *new* point source discharge directly to one of the 17 unique waters that currently does not have an existing point source discharge would result in permanent degradation of existing water quality by increasing loadings or concentration levels for one or more pollutants.

ADEQ agrees with the Coalition’s comment questioning the absolute prohibition against expansion of an existing discharge to a unique water (i.e., Oak Creek). It may be possible to expand an existing discharge to a unique water while, at the same time, preventing increased loadings or increases in concentration levels of pollutants by providing higher levels of treatment of the discharge. For this reason, ADEQ will amend the discussion of the Tier 3 antidegradation review process to clarify that ADEQ may allow expansion of an *existing* discharge to a unique water provided that expansion does not result in a

lowering of existing water quality in the unique water. However, ADEQ would allow the expansion of an existing discharge to a unique water only where it was demonstrated that existing water quality in the unique water would be improved and not degraded. ADEQ will maintain the prohibition against new direct discharges to unique waters.

**31. Comment: 3.2 Antidegradation Review Requirements by Tier:** This section indicates that for non-perennial water bodies, “antidegradation for these discharges will focus on requirements that applicable water quality standards be met by end-of-pipe & technology-based standards as required by permit conditions.” We believe this alone will not assure adequate protection for these waters nor for the perennial waters that many are associated with in some way.

**Response:** ADEQ disagrees. A requirement that discharges to non-perennial waters meet applicable water quality standards and technology-based requirements under the Clean Water Act provides an adequate level of protection for surface waters that normally do not have any water nor existing water quality to protect.

**32. Comment:** Why is no individual Tier 2 degradation assessment required for activities regulated under a general permit or 401 water quality certifications related to either general or individual permits?

**Response:** ADEQ cannot conduct individual Tier 2 antidegradation reviews of discharges authorized by a general permit because general permits are issued categorically for multiple facilities. First, there is no regulatory control document that would be subject to individual Tier 2 antidegradation review in the case of general permits. Second, ADEQ will conduct individual Tier 2 antidegradation reviews of individual AZPDES and §404 permits.

**33. Comment:** We strongly support the provisions that give the utmost protections for unique waters and agree that “The applicant shall use all practical means to minimize temporary adverse impacts to a unique water.”

**Response:** While Tier 3 of the rule permits some temporary or short-term changes in water quality in a unique water, ADEQ strictly interprets the meaning of “temporary” and “short-term.” Temporary or short-term changes in water quality are defined as those occurring for six months or less. ADEQ strongly believes that dischargers who may have temporary impacts on the water quality of a unique water should be required to take all practical measures to minimize water quality impacts.

**34. Comment: Section 3.3 Antidegradation Review Requirements by Type of Activity (pp. 3-8 through 3-9):** As the Coalition has previously commented (see Coalition’s September 18, 2003 comment letter), some activities should be exempt from antidegradation review altogether. These activities include certain temporary discharges, certain bypasses, remedial activities, TMDLs, de minimis discharges, etc.

The last two paragraphs on page 3-8 should be removed from the draft implementation procedures. As already noted above, there is no compelling reason to extend antidegradation review to non-point source activities. Water quality impacts from such activities already are addressed through other programs. In addition, the language in the last sentence in the second to last paragraph on page 3-8 is inaccurate because it states that examples of non-point source permit programs include Phase I storm water, construction activities, industrial storm water, and runoff from confined feeding operations. However, each of these programs or permits is designed to address point sources discharge of impacted storm water runoff. The programs are not non-point source programs.

The first sentence on page 3-9 should be revised by replacing the word “activities” with “discharges.”

**Response:** ADEQ disagrees that there should be exemptions from antidegradation review for temporary discharges, bypasses, remedial activities, TMDLs, or de minimis discharges. Antidegradation review requirements apply to all regulated point and non-point source discharges that may degrade water quality. ADEQ agrees with the proposed revision to replace “activities” with the more precise term, “discharges.”

ADEQ also agrees that the last two paragraphs on page 3-8 related to nonpoint source discharges should be deleted from the antidegradation implementation procedures document because they do not provide clear guidance with regard to the regulation of non-point source discharges under the antidegradation rule. While ADEQ maintains that non-point source discharges are **not** exempt from antidegradation requirements, ADEQ acknowledges that Arizona does not currently have regulatory programs in place to control non-point source pollution. For this reason, ADEQ agrees that the last two paragraphs on p. 3-8 are unclear and should be deleted from the guidance.

ADEQ also agrees that one of the paragraphs cited by the commenter inaccurately characterizes Phase I and Phase II stormwater permits, industrial stormwater, concentrated animal feeding operations, and construction general permits as nonpoint source regulatory programs. Technically, these programs are regulated as point sources under the AZPDES or NPDES permit programs. For all of these reasons, ADEQ will delete the last two paragraphs related to nonpoint sources from page 3-8 of the guidance.

**35. Comment: 3.3 Antidegradation Review Requirement by Type of Activity:** We suggest that the collective and cumulative impact of activities covered by general permits or the 401 certification should be reviewed at the time the permits are issued.

**Response:** ADEQ agrees. A categorical antidegradation review will be conducted at the time of the issuance of a general AZPDES permit or at the time of CWA §401 certification of a nationwide §404 permit.

**36. Comment:** In Section 3.3 AZPDES Permit limits and Antidegradation requirements of the Proposed Antidegradation Implementation Procedures, permit limits

for ephemeral, intermittent and effluent dependent waters will be based upon “US Environmental Protection Agency Effluent Guidelines and Standards and other technology based requirements (e.g., BAT)”. Permittees are entitled to have antidegradation criteria in rule.

**Response:** Antidegradation criteria are prescribed in rule at R18-11-107.

**37. Comment:** The individual permittee has a right to know in rule how an antidegradation review is to be conducted. The proposed antidegradation implementation procedures (3.3) note that the document, “does not cover the entire range of activities, situations, and contingencies that may be encountered during the permitting and antidegradation review procedures,” and that when the “statutes, rules or this guidance to not provide a clear indication of how a review is to be conducted, ADEQ will act in accordance with the directives of the Director to fulfill the intent of the antidegradation policy.” All actions that trigger or determine how an antidegradation review process is to be conducted, should be in rule.

**Response:** The purpose of the draft antidegradation implementation procedures document is to provide guidance on how ADEQ will conduct antidegradation reviews. ADEQ agrees that the introductory paragraph to Section 3.3 cited in the comment is too open-ended and gives the Director too much discretion to replace the implementation procedures described in the guidance document with alternative procedures. It is ADEQ’s intent to conduct antidegradation reviews in accordance with the implementation procedures outlined in the guidance document. The cited paragraph creates regulatory uncertainty. For this reason, ADEQ will delete the first paragraph of §3.3 from the guidance document.

**38. Comment:** The City of Tempe’s only other comment on the draft procedures relates to the application of antidegradation requirements to existing facilities applying for permit renewal. Facilities that are not expanding or otherwise altering the quality or quantity of discharge, and are merely applying for renewal of the same permit for the same facility, should not be subject to antidegradation review. §303(d)(4)(B) of the Clean Water Act states that permitting standards “**may be revised** (emphasis added) only if such revision is subject to and consistent with the antidegradation policy established under this section.” The Act does not direct the application of antidegradation reviews to permit renewals without change. I was concerned by the comment from ADEQ staff at the June 29<sup>th</sup> meeting indicating that changes in water quality standards would trigger antidegradation reviews for existing facilities. This would imply that changes in standards which depleted more than the available 10% of assimilative capacity could result in plant upgrade requirements upon permit renewal despite an existing plant’s ability to meet new standards at the point of discharge, and despite a receiving water body’s attainment of new standards. ADEQ’s antidegradation implementation procedures should be clarified to indicate that existing facilities which apply for permit renewal without changes in discharge quality or quantity will not be subject to antidegradation review.



**Response:** ADEQ believes that AZPDES permit renewals should be subject to antidegradation review. There may be an opportunities to expedite or streamline the antidegradation review process for a facility that is not expanding or otherwise altering the quality or quantity of its discharge but merely applying for renewal of the same permit without change for another 5-year term. The antidegradation review for such a permit renewal may be accelerated or streamlined *provided there are no changes in the facility, the amount or wastewater characteristics of the discharge have not changed, and there have been no changes in the applicable water quality standards or the applicable tier for the receiving water* since the previous antidegradation review was conducted. However, a number of events could occur during a 5-year permit term for an existing facility that could change the nature of an antidegradation review upon permit renewal. For example, new water quality standards could be adopted through the triennial review process that were not considered previously that could affect an antidegradation review upon permit renewal. Also, the applicable tier for the receiving water could change an antidegradation review. For example, a surface water receiving a discharge from an existing facility could be identified as an impaired water and listed on the §303(d) list for a pollutant or a TMDL could be developed and a wasteload allocation developed for the facility. This could affect the antidegradation review for an existing facility. For these reasons, ADEQ thinks that AZPDES permit renewals should be subject to antidegradation review, albeit an expedited one in some cases.

**39. Comment:** Section 3.3 Individual AZPDES Permits – General Applicability (p. 3-9): The Coalition agrees with comments already submitted by the City of Tempe (dated July 27, 2004) that antidegradation review should not apply to individual permit renewals unless there will be a change in discharge quality or quantity. Additionally, as noted above, the Coalition requests that ADEQ clarify that antidegradation review is triggered when new or increased *discharges*, not just activities, are proposed. Accordingly, the first sentence under the heading “General Applicability” on page 3-9 should be revised by replacing the word “activities” with the word “discharges” and by deleting the phrase “or at the time of permit renewal.” Similarly, the fourth sentence under the heading “General Applicability” should be revised by replacing the word “activities” with the word “discharges.”

The last paragraph on page 3-9 should be deleted for several reasons. First, it is out of place because this section of the draft procedures is discussing the application of antidegradation review to individual permits, not general permits. Second, the discussion appears to be inconsistent with the prior discussion of general permits on page 3-8. Third, it is unclear whether the discussion of when general permits are subject to full antidegradation review applies when the general permit is issued or when individual facilities seek coverage under the general permit. Finally, the language appears to give ADEQ unlimited discretion to require the application of full antidegradation review. The Coalition believes that the potential application of antidegradation review to an individual discharge covered under a general permit already is addressed appropriately on page 3-8 (third paragraph).

**Response:** First, ADEQ disagrees with the comment that antidegradation reviews do not apply to permit renewals for the reasons stated in the response to the previous comment. Second, ADEQ agrees with the use of the term, “discharges” instead of “activities” and will make that change in the guidance document. Finally, ADEQ agrees that the last paragraph on page 3-9 regarding general permits should not be included in the discussion of individual AZPDES permits and should be deleted. General AZPDES permits are discussed on p. 3-8 and later in Section 3-5 of the document.

**40. Comment: 3.3 Individual AZPDES Permits:** For activities not explicitly outlined in this document, we believe that ADEQ should act in a manner consistent with the Clean Water Act and the best interest of Arizona citizens and err on the side of more protection.

**Response:** ADEQ has a duty to act in a manner that is consistent with the goals and requirements of the Clean Water Act in implementing the AZPDES permit program.

**41. Comment:** Overview of the Antidegradation Review Procedure (p. 3-12): This section should be revised to clarify that the antidegradation review process is triggered for existing individual permits only if there is a new or expanded discharge. Any reference to antidegradation review during permit renewals should be removed, unless it is modified by language clarifying that permit renewals are subject to antidegradation review *only* if the renewal involves a new or expanded discharge.

**Response:** ADEQ disagrees for the reasons stated in responses to previous comments.

### ***Antidegradation and Storm Water Discharges***

**42. Comment: 3.4 Activities Covered by Phase I Stormwater Permits:** This section indicates that antidegradation reviews for these permits will be based on an adaptive management approach. We would like to see a stronger emphasis on evaluating BMPs and a demonstration that they are actually being implemented.

**Response:** ADEQ’s proposed adaptive management approach to implement antidegradation requirements for storm water discharges relies upon routine monitoring to characterize storm water discharges and effective implementation of storm water management plans to minimize the discharge of pollutants in those discharges to the maximum extent practicable. The approach described in §3.4 of the implementation procedures document emphasizes routine monitoring at representative storm water outfalls to determine what pollutants are being discharged to surface waters. The adaptive management approach also contemplates effectiveness monitoring by MS4s to determine whether best management practices identified in municipal storm water management plans are being implemented and are effective in controlling pollutant discharges in storm water to our rivers and streams.

**43. Comment:** Tempe requests that ADEQ reconsider its approach to applying antidegradation requirements to Phase I MS4 storm water discharges. Phase I storm water discharges are most appropriately grouped with other individual permit discharges

in the proposed procedures, with the clarification that MEP is the discharge standard to which MS4s will be held in order to comply with antidegradation requirements. Rather than specifying MEP at “outfalls,” the procedures could specify MEP “as determined by ADEQ for a specific Phase I MS4 at the time of permit renewal. This would allow for the flexibility that has always been a critical component of Phase I management and monitoring programs, and would allow permit writers and permittees to best determine how to isolate BMPs through monitoring, and how to assess the effectiveness of those BMPs.

**Response:** ADEQ agrees that a Phase I MS4 is required to control storm water discharges of pollutants to the “maximum extent practicable” [MEP]. ADEQ believes that routine monitoring at representative outfalls to characterize storm water discharges to receiving surface waters is a critical element of any storm water management plan and necessary to evaluating whether pollutant discharges are being controlled to MEP. The ultimate goal of any storm water management plan is to control the discharge of pollutants in storm water to our rivers and streams (including ephemeral waters). The effectiveness of any storm water management plan is best determined by measuring whether the best management practices and other control measures in a management plan are effective at controlling and reducing the discharge of pollutants *at the point of discharge to the receiving surface waters*. Without routine monitoring data from representative storm water outfalls, an MS4 will have no information on what pollutants are in their storm water discharges and whether control measures and BMPs in its storm water management plan are working to reduce the discharge of pollutants. It is not unreasonable to require that MS4s conduct storm water discharge characterization monitoring at representative outfalls to generate the data and information that can be used to evaluate whether storm water management plans are effective or not. MS4s have performed this type of monitoring before. All Phase I MS4s were required by Part 1 of their NPDES permit applications to obtain quantitative data to characterize storm water discharges from 5-10 representative sampling points during 3 storm events.

ADEQ’s position with regard to routine monitoring of storm water discharges at representative outfalls does not limit regulatory flexibility or preclude other types of effectiveness monitoring within MS4s.

**44. Comment:** With respect to the flow chart on page 3-11, as applied to Phase I Stormwater permits, the Coalition incorporates by reference the comments submitted by the City of Tempe (dated July 27, 2004) on the requirement to sample representative storm water outfalls to characterize baseline water quality for storm water discharges. As explained in the City of Tempe comments, this requirement is unworkable and should be discarded. Additionally, the concept of establishing baseline water quality for storm water discharges is inappropriate since the concept of baseline water quality in the antidegradation concept generally focuses on the quality of the receiving water not on the discharge. Full antidegradation review is not appropriate for storm water discharges because of the inapplication of baseline water quality and the difficulty in determining what may constitute significant degradation in the storm water discharge context. These

same concerns and comments apply to the language on page 3-15 under the heading “3.4 Activities Covered by Phase I Storm Water Permits.”

**Response:** ADEQ agrees that the concept of baseline water quality, as described in the antidegradation implementation procedures document, cannot be directly applied in the Phase I storm water permitting context. ADEQ is proposing an adaptive management approach to implementing antidegradation requirements through Phase I storm water permits that focuses on routine monitoring at representative outfalls to characterize storm water discharges and to provide the necessary information and data for evaluating the effectiveness of storm water management plans of MS4s. ADEQ’s imprecise use of the phrase, “baseline water quality,” in the discussion of activities covered by Phase I storm water permits on p. 3-15 and in the flow chart on p. 3-11 is confusing. ADEQ will delete the references to “BWQ” in the flow chart and in Section 3.4. However, in deleting these references to baseline water quality, ADEQ is **not** discarding the concept of routine monitoring at representative outfalls to characterize storm water discharges. ADEQ agrees that full antidegradation review as described for other point source discharges is not appropriate for storm water discharges. That is why ADEQ proposed the adaptive management approach that emphasizes implementation of storm water management plans, data collection to determine effectiveness of those plans, and subsequent modification and refinement of the plans to control the discharge of pollutants in storm water discharges to the maximum extent practicable.

**45. Comment: 3.5 Activities Covered by General AZPDES Permits** This section and the language in it seem pretty loose. This section says that regulated activities already under general permits are satisfying antidegradation requirements. What proof is there that the water is not being degraded? Does simply stating it make it so? Why not require some demonstration from these entities?

**Response:** General permits are developed for multiple discharges on a categorical basis. General permit terms and conditions also are established on a categorical basis to maintain and protect water quality and to prevent degradation. ADEQ will review the general permit terms and conditions at the time of the issuance of a general permit. Careful review of a general permit at the time it is issued will provide reasonable assurance that antidegradation requirements will be met on a categorical basis. If ADEQ concludes that the general permit terms and conditions are inadequate, ADEQ can require that additional permit conditions be included in the general permit to protect water quality and prevent degradation.

**46. Comment: Antidegradation Review Considerations:** If §404 permits being fulfilled would constitute antidegradation, as the document proposes (Pg.3-17), then the permits need to be written with this in mind. Permits that have already been written should not be grandfathered in; they should be reevaluated under strict antidegradation guidance to make sure that waters are not degraded.

**Response:** ADEQ will conduct antidegradation reviews of individual §404 permits using the §404(b)(1) guidelines. The §404(b)(1) guidelines closely parallel antidegradation

requirements in that they require findings of necessity, examination of alternatives, and requirements for implementing the least damaging alternative and mitigation of water quality impacts associated with the discharges. ADEQ will **not** conduct antidegradation reviews for existing §404 permits that have already been issued and ADEQ has provided a §401 water quality certification.

### ***Determining Baseline Water Quality***

**47. Comment:** The Coalition commends ADEQ for its progress in developing draft procedures for addressing the determination of baseline water quality. We are encouraged that ADEQ has clarified various issues, including the inapplication of baseline water quality to ephemeral streams, intermittent streams, and effluent dependent waters. We also commend ADEQ for requiring that sampling for determination of baseline water quality meet the same data quality and other related requirements set forth under Arizona's impaired water identification rule at A.A.C. Title 18, Chapter 11, Article 6.

**Response:** ADEQ believes it has developed a practical approach to implementing antidegradation requirements for discharges to ephemeral waters, intermittent waters and effluent dependent waters. It is not practical to determine baseline water quality for such waters. Requiring compliance with applicable water quality standards and technology-based requirements under the Clean Water Act can be reasonably presumed to satisfy antidegradation requirements in water courses that are normally dry. We agree that credible data requirements should be applied when implementing antidegradation in Arizona.

**48 Comment: 4.2 Baseline Water Quality Assessment Procedures:** Why not require regulated entities to submit monitoring data in advance rather than merely recommend it? We strongly support environmental groups, the general public, and others being allowed to contribute to efforts to establish BWQ through proper volunteer water monitoring. Sierra Club members are interesting in helping and volunteering.

**Response:** ADEQ states in §4.2 on baseline water quality (BWQ) assessment procedures that BWQ must be established in order to conduct an antidegradation review for a discharge that may degrade a perennial water. If data or information are not available to determine BWQ, the data must be generated. ADEQ states that it may consider data for establishing BWQ that ADEQ obtains, or is from another federal or state agency, the regulated entity, and the public (including volunteer monitoring groups) provided the data meet credible data requirements. That is, the data were collected in accordance with an approved quality assurance project plan and were collected using the appropriate sample collection and analysis protocols. If adequate water quality data are not available to establish BWQ, regulated entities will be required to generate and provide such data.

**49. Comment:** Limiting the sources of sampling and analytical procedures in §4.4 seems to omit obvious references such as Standard Methods for the Examination of

Water and Wastewater, and EPA laboratory and field methods. Other acceptable documents may include ADEQ documents and USGS documents such as:

1. Field Guide For Collecting And Processing Stream-Water Samples For The National Water-Quality Assessment Program, U.S. Geological Survey (USGS) Open-File Report 94-455.
2. A Guide to Safe Field Operations. USGS Open-File Report 95-777 [1996].
3. Interagency Field Manual for the Collection of Water-Quality Data. USGS
4. Wilde, F.D., Radtke, D.B., Gibs, Jacob, and Iwatsubo, R.T., Preparations for Water Sampling, in National Field Manual for the Collection of Water-Quality Data.. USGS Techniques of Water-Resources Investigations, Book 9, Chap. A4.0.1.

**Response:** ADEQ does not think that §4.4 of the guidance document limits sampling and analytical procedures to those prescribed in the ADEQ Fixed Station Network Procedures Manual for Surface Water Quality Monitoring. ADEQ will require that a sampling plan be developed and submitted that is consistent with credible data requirements of the Impaired Waters Rule. Analytical methods must be approved methods under Title 14, Article 6 of the Arizona Administrative Code.

**50. Comment:** The document titled “Fixed Station Network Procedures Manual for Surface Water Quality Monitoring” in 4.4 was not found on the ADEQ web site. This should be readily available for review if it is to be used as a basis for establishing sampling and analytical procedures. The reference document for determining the critical flow (7Q10) would be helpful as this nomenclature is also utilized for hydrologic calculations based on storm discharge probability not base flow measurements.

**Response:** ADEQ agrees that reference documents containing approved monitoring procedures should be available to the public. ADEQ will look into the feasibility of putting a PDF version of the procedures manual on the ADEQ web site for information purposes. However, as noted in a response to a previous comment, the ADEQ Fixed Station Network Procedures Manual for Surface Water Quality Monitoring is one of several guidance documents that could be used to generate credible monitoring data.

**51. Comment:** Section 4.5 (p. 4-5): Consistent with comments already addressed above, the first sentence in section 4.5 should be revised by replacing the word “activity” with the word “discharge.”

**Response:** ADEQ agrees and has replaced the word, “activity,” with the word “discharge,” in §4.5.

**52. Comment:** On page 4-5 when stating “In general... provided that the pollutant is anthropogenic in origin” seems contradictory to the next statement that “there is no human activity upstream.”

**Response:** On p. 4-5, ADEQ discusses how it will determine baseline water quality for a specific parameter of concern. In general, ADEQ will calculate the arithmetic average of all qualified data to determine BWQ. However, for datasets that contain only “non-detect” analytical results, ADEQ will assume that BWQ for a parameter is zero if the parameter of concern is anthropogenic in origin, there is no upstream human activity, atmospheric deposition is unlikely, and appropriate analytical methods were used. Otherwise, ADEQ will use different assumptions (either ½ the method reporting level or ½ the water quality criterion) depending on the MRL reported and whether it is above or below the applicable water quality standard to determine BWQ.

For example, the baseline water quality determination for a synthetic organic chemical [SOC] that was determined to be in a wastewater discharge would be different from the BWQ determination for a metals parameter which may be present in the surface water above the discharge. For the synthetic organic chemical, ADEQ would assume that baseline water quality for the SOC is zero provided the SOC is anthropogenic in origin, there is no upstream human activity as a likely source of the SOC, atmospheric deposition of the SOC is unlikely, and an analytical method with a low MRL was used. By contrast, the BWQ determination for a metal parameter for which some natural background is likely, ADEQ would not assume that BWQ is zero. ADEQ would use different assumptions (i.e., (either ½ the method reporting level or ½ the water quality criterion) to calculate BWQ.

### **Assessing the Level of Degradation of Proposed Discharges**

**53. Comment:** Sections 5 and 5.1: Consistent with comments already set forth above, the first sentence in each of these sections should be revised by replacing the phrase “regulated activity or activities” with the phrase “regulated discharge or discharges.”

**Response:** ADEQ agrees and has revised the document as suggested.

**54. Comment:** We support the statement on pg.5-1, “Temporary impacts on a unique water should be minimized to the maximum extent practicable.” We encourage the agency to ensure that impacts are truly temporary in nature and that one temporary impact is not followed by another and another, thus allowing degradation of the water body over time.

**Response:** ADEQ agrees that temporary impacts to unique waters should be minimized to the maximum extent practicable. “Temporary impacts” on a unique water are specifically defined in the antidegradation implementation procedures as impacts of less than 6 months duration. Serial temporary impacts as described in the Sierra Club comment are prohibited by the Tier 3 implementation procedures.

**55. Comment:** In Section 5.3 “Other Assessment Methods” include the statement that “other simulative methods, models, or predictive discharge rates may be used for assessing the level of degradation on perennial and intermittent streams, effluent dependent waters, and lakes if approved by ADEQ.” Permittees are entitled to have

antidegradation criteria in rule. In addition, including effluent dependent waters in this category contradicts the “end of pipe” Tier 1 level review specified within the rest of the document.

**Response:** ADEQ agrees that the statement that other methods, models, or predictive discharge rates may be used to determine the level of degradation is too open-ended, vague, and does not provide adequate guidance to the regulated community on how ADEQ will determine the significance of degradation in Tier 2 waters. ADEQ deleted the section on “Other Assessment Methods” in the final antidegradation implementation procedures document.

## **Identifying and Evaluating Pollution Control Alternatives for Tier 2 Reviews**

**56. Comment:** In evaluating the less degrading and non-degrading pollution control measures, the ADEQ should factor in so-called external costs such as the effects on people’s health and the places they live, their home, the environment. We suggest that the ADEQ look at “Defending the Public Domain: Pollution, Subsidies and Poverty” by Paul H. Templet, 2001. In it, he evaluates the effects of pollution, energy, and tax subsidies relative to poverty and increasing income disparities. He concludes that, “The pollution subsidy is correlated with worse economic performance in terms of poverty, income disparity, unemployment, and average personal income.” The agency might also consider the information in “Ecological-Economic Analysis and Valuation of Biodiversity” by Nunes et.al. This provides additional information on evaluating the value of protecting biodiversity.

**Response:** ADEQ believes that the types of external costs described in the Sierra Club comment are addressed by the guidance provided on alternatives analyses and the social and economic justification before allowing significant degradation of a Tier 2 surface water. Section 6.3 of the guidance document addresses the evaluation of environmental impacts associated with an alternatives analysis. Applicants are required to provide substantive information pertaining to both the costs and the environmental impacts associated with all pollution control alternatives. Information related to environmental impacts include impacts on the natural environment (land, water and air) resulting from the implementation of each alternative. Non-water quality impacts analyses to be submitted by the applicant include estimations of the potential impact of the alternative on odor, noise, energy consumption, air emissions, and solid waste generation. Social, economic and environmental considerations that are a requirement of Tier 2 reviews include an analysis of the effects on employment and unemployment rates, median household income, reduction in poverty, effects on housing, community tax base, and the provisions of other public services, and improving the quality of life for residents in the area.



## **Determining Social and Economic Importance for Tier 2 Protection**

**57. Comment:** In addition to the items listed on pg.7-2 as social, economic or environmental considerations, we suggest that the agency add important long-term and sustainable economic and social development and consider some of the issues explored in the research relative to pollution subsidies (see documents mentioned above). Industry should pay for the costs of doing business rather than shifting enormous burdens on to the larger public. Protecting wildlife and the overall ecology of an area should be considered in this analysis. Degradation should be minimized in Tier 2 and only allowed if not doing so would cause undue hardship to a community, bearing in mind these larger issues and the long-term implications of allowing continued degradation of our rivers and streams. The element of public participation in this section seems acceptable. However, the public participation component should be mandatory for any lowering of standards at any Tier, including Tier 1.

**Response:** The public participation procedures and the socio-economic considerations described on page 7-2 apply to where significant degradation of a Tier 2 surface water may occur. The list of social, economic, and environmental factors on 7-2 is not an exclusive one. Issues related to sustainable development, pollutant subsidies, and externalizing environmental costs are important issues that can be considered during the antidegradation review process. One of the important roles for a concerned public is to participate in the antidegradation review process to ensure that such issues are brought to the table and adequately considered by the agency.

**58. Comment: Role of ADEQ in Making a Preliminary Determination of Social and Economic Importance:** We have significant concerns about the statement “In a preliminary decision, ADEQ will rely primarily on the demonstration made by the applicant.” The agency should develop a set of objective criteria for this, not rely primarily on the applicant. The objective criteria developed should truly reflect the guidance of antidegradation protection and uphold the Clean Water Act, not the special interests of a particular group or company.

**Response:** ADEQ puts the burden on the proponent of a discharge that will significantly degrade a surface water to provide sufficient information to make an adequate demonstration that the proposed discharge is necessary to accommodate important social and economic development in the area where the surface water is located. ADEQ will review the information provided and document its preliminary determination in the administrative record. ADEQ’s preliminary determination is subject to public participation and open so the decision-making process is not susceptible to undue influence by the proponent or any special interest. The public has an opportunity to participate in the decision-making process and make sure that ADEQ adequately considers all of the relevant social and economic issues before making a final decision.

**59. Comment: 7.5 Final Determination:** In the determination it should also be mandatory to include a provision where the director ensures that it is consistent with the goals of the Clean Water Act.

**Response:** The existing antidegradation rule, R18-11-107, and the proposed implementation procedures are consistent with the Clean Water Act. In fact, ADEQ will submit the proposed antidegradation implementation procedures to EPA Region IX for their review to determine the consistency of those procedures with the requirements of the Clean Water Act.

### **Requirements for Intergovernmental Coordination and Public Participation**

**60. Comment:** We suggest that ADEQ be required to review and consider the public comments for antidegradation reviews not just take them. The second paragraph, second sentence could be revised to say “public hearing and the collection AND CONSIDERATION of public comments . . .”

**Response:** ADEQ agrees and has revised the document as suggested.

**61. Comment:** 8.3 Intergovernmental Coordination and Review: How will the agency handle the intergovernmental review when it is the government entity that is proposing to significantly degrade a surface water? For example, what if Pima County is proposing an activity that will significantly degrade a stream? How will you weigh the County’s feedback during an intergovernmental coordination and review?

**Response:** ADEQ will handle intergovernmental review and public participation in Tier 2 reviews the same way regardless of what discharge is subject to Tier 2 antidegradation review. In general, ADEQ will use the public participation process that applies to the issuance of AZPDES permits to guide the review process. ADEQ will include the antidegradation review in the fact sheet for an AZPDES permit. ADEQ will not give additional weight to specific comments received during intergovernmental coordination and review and public participation. All comments will be considered on their merits and be given equal weight in the public participation process.

**62. Comment:** It is requested that “any affected Council of Government” be added to the ADEQ Implementation Procedures list of entities to receive Arizona Pollutant Discharge Elimination System (AZPDES) public notice in order to ensure that ADEQ procedures are consistent with the Arizona Administrative code. Page E-3 of the draft procedures indicates that ADEQ public participation and interagency coordination procedures will follow R18-9-A907(A)(3)(a) through (g) of the Arizona Administrative Code. Pursuant to Section (c) of the Code, the Department is required to provide a copy of the AZPDES public notice to several entities including any affected Council of Government. The draft implementation procedures list of entities on P. E-3 does not currently include affected Councils of Government.

**Response:** ADEQ agrees and has added Councils of Government to the list of entities on page E-3.

## *Appendices*

**63. Comment:** Appendix C-3 refers to 110% over base cost. As written it is unclear if this is 110% over base cost or inclusive of base cost.

**Response:** ADEQ refers to 110% of the base costs of pollution control measures in Appendix C-3 as the general “rule of thumb” that ADEQ will use to determine whether an alternative that is considered in a Tier 2 alternatives analysis is cost-effective and reasonable. In general, an alternative is considered to be cost-effective and reasonable if it is feasible and the cost is less than 110% of the base costs of pollution control measures. The base cost for an AZPDES permitted facility is the cost of treatment to meet applicable water quality standards or the cost of meeting federal technology-based requirements [See Section 6.4 of the antidegradation implementation procedures on p. 6-4].

### **Other Comments**

**64. Comment:** Thank you for considering our comments on this guidance document. We think the flow charts in Appendix A help a great deal with understanding the document and perhaps could be moved to the front. Overall, this would not be an easy document for someone who is not familiar with the process and procedures of the agency, so we encourage you to wherever possible clarify and state clearly the intent – using terms that are familiar and or defined. The clarity and transparency of the document overall should be greater and allow for the public to understand what exactly is being allowed on public waters even if the person reading it is not a regulatory person.

**Response:** It has been a considerable challenge for ADEQ to develop the draft antidegradation implementation procedures and explain them in a way that is understandable to a general audience. ADEQ has done the best it could in trying to explain this relatively complex water quality standards concept in a way that is understandable to the general public.

**65. Comment:** The document makes no mention of the impacts of activities resulting from changing stream temperatures, or causing increased high flows from storm-water runoff, or reducing the stream flows during drier periods.

**Response:** Thermal discharges to a surface water are regulated directly under R18-11-109(C). The rule specifically limits the maximum allowable increase in temperature due to a thermal discharge. Diversions, water withdrawals, and changes in flow are not regulated under the antidegradation rule.

**66. Comment:** Use of MRL in a non-detect. The MRL will change dependent on the calibration of the instrument and the matrix (water, wastewater etc.) being measured. This will lead to a wide variety of values for the calculation of the non-detect and require backtracking through extensive records each permit cycle. Currently ELAC is meeting with ADHS and Chuck Graf of ADEQ to discuss this and other issues. ELAC proposed

AZRLs (Arizona Reporting Limits). Selection criteria were based on establishing reporting limits that most labs (but not all) could achieve on a routine basis. The AZRLs will be tied to a policy statement that will essentially allow (1) labs to use any ADHS certified method that will test for the permit parameter and (2) for those parameters that a laboratory cannot meet the required AWQS due to available technology or matrix interferences, the lab should be able to meet the AZRL limit under most circumstances. The policy statement will apply to APP, AZPDES and Reuse permits and it was patterned after an existing policy statement drawn up by ELAC and ADEQ in the mid-nineties for APPs.

**Response:** ADEQ is not opposed to using Arizona Reporting Limits proposed by the Environmental Laboratory Advisory Committee (ELAC) where appropriate in the Arizona antidegradation implementation procedures. ADEQ cannot tell from the comment specifically where the commenter believes Arizona Reporting Limits might be used in the guidance document. The proposed AZRLs are relevant to the determination of baseline water quality. In § 4.6 of the guidance document, ADEQ proposed to use Method Reporting Limits (MRLs) to interpret “not detected” analytical results in baseline water quality determinations. The guidance states that if the MRL is equal to or less than an applicable water quality standard, ADEQ would use ½ of the MRL to determine BWQ for a parameter. If the MRL is greater than the standard, ADEQ would use ½ of the standard. ADEQ will replace MRLs with Arizona Reporting Limits proposed by the Environmental Laboratory Advisory Committee since the AZRLs represent reporting limits from 12 testing laboratories in Arizona.

**67. Comment:** A search of the document should be made for the reference to “narrative” standards used to determine degradation. References were found on numerous pages, in addition the definition of “Baseline Water Quality” should be re-worded to solely reference numeric standards.

**Response:** ADEQ agrees that references to narrative standards should be deleted from antidegradation implementation procedures because objective criteria to implement antidegradation requirements using narrative standards have not been developed.